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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,290

01/27/2006

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EXAMINER

DOAN, JENNIFER

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 09/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/566,290

Applicant(s)

YOON, HYUN-JAE

Examiner

Jennifer Doan

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings, filed on 01/27/06, are accepted.

Specification

3. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi et al. (U.S. 5,408,559).

With respect to claim 1, Takahashi et al. (figure 1) disclose a bi directional optical module package having an optical module unit comprising a substrate member (14, 15); an optical filter (16) installed on the substrate member (14, 15) to be inclined with respect to an optical fiber (19); a first holder (20) supported by the substrate member (column 5, lines 28-29) on one side of the optical filter (16) and having a laser diode (2) and a lens (3A) for transmitting an optical signal to the optical fiber (19) through one side of the optical filter (16); and a second holder (see figure 1) supported by the substrate member (column 5, line 51) on the other side of the optical filter (16) and having a photodiode (8) and a lens (18) for receiving the optical signal received through the optical fiber (19).

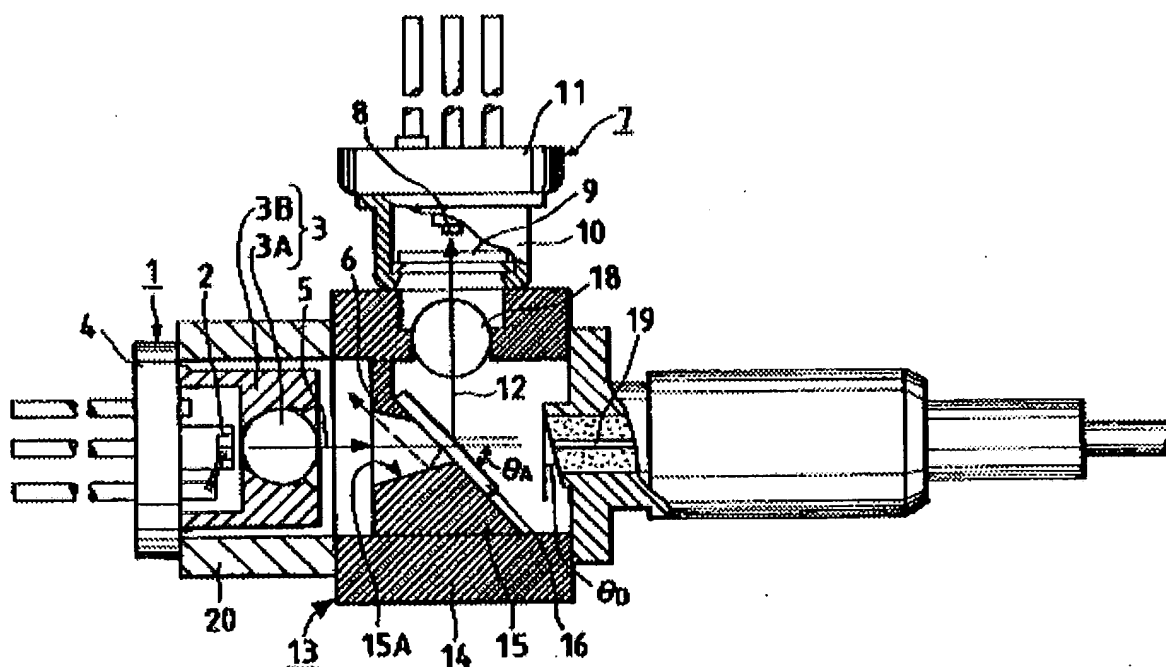
With respect to claim 3, Takahashi et al. (figure 1) disclose the bi directional optical module package, wherein an optical axis of light transmitted from the laser diode (2) and an optical axis of light received from the photodiode (8) are disposed at right angle with respect to each other with the optical filter (16) being interposed therebetween (see figure 1).

With respect to claim 4, Takahashi et al. (figure 1) disclose the bi directional optical module package, wherein the first holder (20) includes a first base portion (4) having a laser diode (2), a pad and a circuit pattern installed thereon, and first extending portions which extend from both sides of the first base portion to define a fixed position of the lens, and the second holder includes a second base portion (11) having a photodiode (8) installed on an inner surface thereof, and second extending portions

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which extend from both sides of the second base portion to define a fixed position of the lens (18).

With respect to claim 5, Takahashi et al. (figure 1) disclose the bi directional optical module package, wherein inclined planes for fixing a position of the optical filter (16) are formed on at least one side of the first extending portions and at least one side of the second extending portions (see figure 1).

FIG. 1

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. (as cited above) in view of Uckawa (U.S. 2004/0184744).

Takahashi et al. substantially disclose all the limitations of the claimed invention except the substrate member and the first and second holders are made of ceramic.

However, Uckawa teaches the substrate member and the first and second holders are made of ceramic (see paragraph [0122]). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Takahashi et al. to have the substrate member and the first and second holders made of ceramic (accordance with the teaching of Uckawa) for the purpose of providing good support and protection for the optical device.

8. Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. (as cited above) in view of Takamori (U.S. 6,985,647).

With respect to claims 6 and 7, Takahashi et al. (figure 1) disclose a bi directional optical module package comprising an optical fiber (19) which is supported by supporting means (see figure 1); an optical module unit which has a substrate member

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(14, 15), an optical filter (16), a first holder (20); and a second holder (see figure 1); the optical filter (16) being installed on the substrate member (14, 15) to be inclined with respect to an optical fiber (19); the first holder (20) supported by the substrate member (column 5, lines 28-29) on one side of the optical filter (16) and having a laser diode (2) and a lens (3A) for transmitting an optical signal to the optical fiber (19) through one side of the optical filter (16); and a second holder (see figure 1) supported by the substrate member (column 5, line 51) on the other side of the optical filter (16) and having a photodiode (8) and a lens (18) for receiving the optical signal received through the optical fiber (19); a stem which supports the optical module unit and has a plurality of pins (see figure 1).

Takahashi et al. do not explicitly disclose a cover member, which is coupled to the stem to surround the optical module unit and has an opening formed on a side corresponding to the optical fiber and an auxiliary lens for focusing light in the opening of the cover member.

However, Takamori (figure 9) teaches the cover member (20) which is coupled to the stem to surround the optical module unit and has an opening formed on a side corresponding to the optical fiber (27) and an auxiliary lens (24) for focusing light in the opening of the cover member. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Takahashi et al. to the cover member surround the optical module unit and has an opening formed on a side corresponding to the optical fiber and an auxiliary lens for focusing light in the opening of the cover member (accordance with the teaching of

Takamori) for the purpose of obtaining good protection and higher efficiency of focusing light signals.

With respect to claim 8, Takahashi et al. (figure 1) disclose the bi directional optical module package, wherein the first holder (20) includes a first base portion (4) having a laser diode (2), a pad and a circuit pattern installed thereon, and first extending portions which extend from both sides of the first base portion to define a fixed position of the lens, and the second holder includes a second base portion (11) having a photodiode (8) installed on an inner surface thereof, and second extending portions which extend from both sides of the second base portion to define a fixed position of the lens (18).

With respect to claim 9, Takahashi et al. (figure 1) disclose the bi directional optical module package, wherein inclined planes for fixing a position of the optical filter (16) are formed on at least one side of the first extending portions and at least one side of the second extending portions (see figure 1).

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. and Takamori (as cited above), as applied to claims 6 and 8 above, and further in view of Uckawa (as cited above).

With respect to claim 10, the combination of Takahashi et al. and Takamori substantially disclose the invention as claimed.

Neither Takahashi et al. nor Takamori disclose the substrate member and the first and second holders are made of ceramic.

However, Uckawa teaches the substrate member and the first and second holders are made of ceramic (see paragraph [0122]). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device structure of the above combination by using ceramic to make the substrate member and the first and second holders (accordance with the teaching of Uckawa) for the purpose of providing good support and protection for the optical device.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Doan whose telephone number is (571) 272-2346. The examiner can normally be reached on Monday to Thursday from 6:00am to 3:30pm, second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JD

September 15, 2006



JENNIFER DOAN
PRIMARY EXAMINER